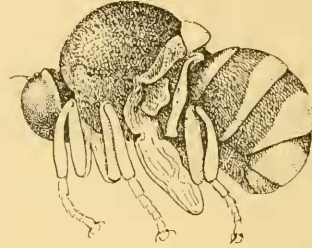


AN INTERNAL DIPTEROUS PARASITE OF SPIDERS.—In the spring of 1887 while hunting for spiders in company with Mr. G. Dimmock in the cracks on the steep sides of some rocks near Roberts Station in Waltham, Mass. I found hanging in cobwebs several soft white maggots and pupae. The webs were generally old and out of repair and a closer examination showed that there were no living spiders in them but in almost every one an empty skin of a common spider, *Amaurobius sylvestris*, nearly full grown. The skin of the legs and thorax was not clean like a moulted skin but dirty and opaque as though eaten out and the skin of the abdomen when present was torn and shrivelled. From this I concluded that the maggots came out of the spider and from their size must have nearly filled them. The maggots varied considerably in size the largest being a quarter of an inch long while others were not much more than half as large. The hinder half of the body was thicker than the front half and nearly spherical.



They hung head upward holding to the web by their jaws and were also partly supported by threads under and around them. I was unable that season to raise the adult fly some of the larvae being injured in carrying them home though kept in cobwebs and cotton wool and the others dying apparently from too dry air within a few days. In May

1889, I again found in the same locality several other specimens also in abandoned cobwebs and with the dead and empty spiders as before and among them one pupa far enough advanced to grow to the adult condition though the skin dried so much that it had to be torn off and the fly never expanded its wings properly. It turned out



to be a species of *Acrocer* belonging to a family several species of which have been found parasitic in the same way in spiders. In his monograph of the spiders of Prussia (Schriften der Nat. Gessel. Danzig 1863-1866) Menge mentions a similar case. He kept in the house a female *Clubiona putris* in its nest attached to a heath plant. After a few days the spider died and shrivelled and in its place was a maggot suspended by a thin web across the nest. Next day it pupated and a week later there came out the fly, *Henops marginatus* Meigen.

F. Brauer (Verb. d. Zool-bot.-gessel. Wien, 1869, p. 737) describes *Astomella lindeni* Er., which came from *Cteniza ariana* Koch, a trap-door spider from Corfu. The pupa and larva skins were found in the tube and also the dead spider with the abdomen shrunken and having in front a large hole from which the maggots had escaped.

Both these flies belong to the *acroceridae*. My specimen has been examined by S. W. Williston who thinks it is either *Acrocer fasciata* or a species closely related to it.

J. H. Emerton.